

ABSTRACT

The disclosure herein relates to a high throughput system for thin film deposition on substrates which can be used in applications such as optical disks, and in particular DVD disks, chip-scale packaging, and plastic based display, for example. An apparatus useful in the production of products of the kind described above includes: (a) a continuously moving web for simultaneously transporting a number of substrates to which a thin film of material is to be applied, wherein the moving web is a roll-to-roll moving web; (b) a central processing chamber which is maintained under vacuum and through which at least a portion of said continuously moving web travels; and, (c) at least one deposition device which is located within said central processing chamber, where at least a portion of said continuously moving web is exposed to material deposited from said deposition device. Typically the deposition device is a magnetron sputtering device. In addition, the apparatus typically also includes (d) a first moving platform which transfers a substrate onto said continuously moving web, and (e) a second moving platform which receives processed substrates from said continuously moving web.